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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,722	08/28/2001	Hironobu Kitajima	1619.1014	4071

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
OUELLETTE, JONATHAN P	
ART UNIT	**PAPER NUMBER**
3629	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/939,722	KITAJIMA, HIRONOBU	
	Examiner	Art Unit	
	Jonathan Ouellette	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9 and 11-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9 and 11-29* is/are rejected.

7)☐ Claim(s) *9 and 11-29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1-8, and 10 have been cancelled, and Claims 14-29 have been added; therefore, Claims 9 and 11-29 are now pending in application 09/918,092.

Claim Objections

2. **Claims 9 and 11-29** are objected to because of the following informalities: the specification describes the user agent, brokering agent, and elementary service agents as a physical systematic component, such as: an apparatus or computer programmed to complete a service (Para 0037, 0039, and 0041). However, the Applicant's arguments and amendments to Claims 9 and 11-29 are potentially describing the "agents" as people performing a job; which would constitute a 101 rejection, for attempting to claim a "person." Therefore, the Examiner will treat the "agents" disclosed in the claims as originally described in the specification and the closest related definition: a means or instrument by which a guiding intelligence achieves a result.

Claim Rejections - 35 USC § 101

3. The rejection of Claim 9 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, is withdrawn due to Applicant's arguments.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 9 and 11-29 are rejected under 35 U.S.C. 102(b) as being anticipated by DeLorme et al. (US 5,948,040).**

6. As per **independent Claims 9**, DeLorme discloses a service brokering method (C31 L42-51, brokering) for providing a complex service (travel plan) integrating a plurality of elementary services (service providers) realized on a system which comprises a user agent on a user's computer (User), a brokering agent connected to the user agent via a network and providing a complex service integrating a plurality of elementary services realized on a computer to the user agent (Trips system), and a plurality of elementary service agents connected to the brokering agent via a network and each of the plurality of elementary service agents providing an own elementary service realized on its own computer and provided independently with each other (Providers), the method comprising: the brokering agent storing for each elementary service, service description information comprising a combination of identification information of an elementary service agent which provides the elementary service (Provider Listing), declarative description information on information needed to realize the elementary services (Fig. 1C, who, what, where - provided by user), and declarative description information on processing results of the elementary services (Fig. 1C, user information used to obtain

necessary tickets, reservations, etc.); the declarative description information comprising a declarative description and stating what properties an object of description has (Ticket number, hotel room, plane seat number); the brokering agent, upon receipt of a request message for the complex service from the user agent (Fig.2, Input/Output; C7 L22-24, Travel Route, who/what/where entered by retail user); decomposing the complex service into elementary services (C8 L33-48, TRIPS calculates, delineates, and displays travel route) using the service description information, and generating a service request plan comprising strings of combinations of at least elementary service information needed to realize the complex service, and identification information of the elementary service agent which provides the elementary service; and the brokering agent requesting elementary service to the plurality of the elementary service agents based on the generated request plan, and compiling the processing results so that the processing results of the complex service are prepared and notified to the requesting user agent (C7 L28-65, C8 L33-48, TRIPS generates full itinerary integrating information from outside providers).

7. As per **independent Claim 11**, DeLorme discloses a computer readable storage medium recording a service brokering program for realizing a brokering agent (Trips system on pre-recorded medium) providing a complex service integrating a plurality of elementary services on a computer (Trips system gathers requests from users and gathers integrated results from providers to provide user with complete travel plan), the brokering agent (Trips system) being connected to a user agent on a user's computer via a network (Internet) and a plurality of elementary service agents (third party providers) connected to

the brokering agent via a network (Internet), and each of the plurality of elementary service agents realized on its own computer and provided independently with each other (third party systems – hotels, airports, event tickets), the program causing the computer of the brokering agent to execute: receiving a request message for the complex service from the user agent (Fig.1C, retail user answers "who/ what/ where?"; C7 L22-35, C8 L33-37, receiving user defined travel route); and upon receipt of the request message, decomposing the complex service into the elementary services (C8 L33-48, TRIPS calculates, delineates, and displays travel route) using service description information comprising a combination of identification information of an elementary service agent which provides the elementary service, declarative description information on information needed to realize the elementary services, and declarative description information on the processing results of the elementary services that are stored in advance for each elementary service (C7 L22-24, Travel Route, who/what/where entered by retail user), the declarative description information comprising a declarative description and stating what properties an object of description has, generating an elementary service request plan comprising strings of combinations of at least elementary service request information needed to realize the complex service, and identification information of the elementary service entities (C7 L28-65, C8 L33-48, TRIPS generates full itinerary); and requesting elementary services to the plurality of elementary service agents based on the generated request plan, and compiling the processing results so that the processing results of the complex service are prepared and notified to the requesting user agent (C7 L28-65, C8 L33-48, TRIPS generates full itinerary).

8. As per **independent Claim 12**, DeLorme discloses a service integration system comprising: a user agent on a user's computer (Fig.1A, Fig.2, retail user system); a brokering agent (Fig.2, TRIPS system; C31 L42-51, brokering) connected to the user agent via a network (Internet) and providing a complex service (Travel planning) integrating a plurality of elementary services realized on a computer to the user agent (Trips system gathers requests from users and gathers integrated results from providers to provide user with complete travel plan); and a plurality of elementary service agents (Fig.2, third-party providers), connected to the brokering agent via a network (Internet), and each of the plurality of elementary service agents providing an own elementary service realized on its own computer and provided independently of each other (third party systems – hotels, airports, event tickets), the brokering agent comprising; means for storing service description information comprising a combination of identification information of an elementary service agent which provides the elementary service (provider listings), declarative description information needed to realize the elementary services (Fig.1C, retail user answers "who/ what/ where?"; C7 L22-35, C8 L33-37, receiving user defined travel route), and declarative description information on the processing results of the elementary services (user information used to obtain necessary tickets, reservations, etc.) for each of the plurality of elementary services, the declarative description information comprising declarative description and stating what properties an object of description has (Ticket number, hotel room, plane seat number), means for transmitting and receiving messages (Fig.2, Input/Output), and means for upon receipt of a request message for the complex service from the user agent (Fig.1C, retail user

answers "who/ what/ where?"; C7 L22-35, C8 L33-37, receiving user defined travel route), decomposing the complex service into the elementary services using the service description information (C8 L33-48, TRIPS calculates, delineates, and displays travel route), and generating an elementary service request plan comprising strings of combinations of at least elementary service request information needed to realize the complex service, and the identification information of the elementary service agent which provides the elementary service, and means for requesting elementary services to the plurality of the elementary service agents based on the generated request plan (C31 L42-51, brokering), and compiling the processing results so that the processing results of the complex service are prepared and notified to the requesting user agent (C7 L28-65, C8 L33-48, TRIPS generates full itinerary).

9. As per new Claim 14, DeLorme discloses wherein the brokering agent transmits the request plan in response to a request for the request plan from the user agent (C7 L28-65, C8 L33-48, TRIPS creates full itinerary; C31 L42-51, brokering).

10. As per new Claim 15, DeLorme discloses wherein the brokering agent further comprises means for receiving from the user agent service description information comprising a combination of identification information of the elementary service agent which provides the elementary service, declarative description information in the information needed to realize the elementary service thereof, and declarative description information in the processing results of the elementary service, and means for storing the service description information into means for dynamically registering the service description information (C7 L22-35, C8 L33-37, receiving user defined travel route).

11. As per new Claim 16, DeLorme discloses wherein the declarative description information on information needed to realize the elementary service and the declarative description information on the processing results of the elementary service are expressed by classes or objects of an object-oriented language (Fig.1C; C8 L33-62, TRIPS generated travel itinerary, C8 L33-62).

12. As per new Claim 17, DeLorme discloses wherein the brokering agent further comprises ontology storing means for storing definition information on vocabularies used in the declarative description information on information needed to realize the elementary service and the declaration description information on the processing results of the elementary service (Fig. 1C, C23 L30-37, retail user queries Topical subsystem/databases for travel related topics, subject matter, and contents – vocabularies would be entered by user to request descriptive info).

13. As per new Claim 18, DeLorme discloses wherein the means for decomposing decomposes the complex service into the plurality of elementary service using the service description information and the definition information stored in the ontology storing means (Trips systems determines where to obtain travel information by user input information).

14. As per new Claim 19, DeLorme discloses wherein the means for generating the elementary service request plan prepares the elementary service request plan taking into account meta-information describing the nature of the elementary service agent which provides the elementary service itself, in addition to the declarative description information on information needed to realize the elementary service and the declarative

description information on the processing results of the elementary information (C8 L33-48, itinerary determines by quickest route, shortest route, seat availability, pricing, and departure times).

15. As per new Claim 20, DeLorme discloses wherein the meta-information user for preparing the elementary service request plan is information on users' access rights to elementary services, information on the line speed or processing speed of elementary services, or information on the user preference of the elementary services (C8 L33-48).
16. As per new Claim 21, DeLorme discloses wherein the brokering agent receives a reply message from any of the plurality of elementary service agents, judges whether generation of a new request plan is needed in accordance with the reply message, and generates a new request plan including a change in the previously generated request plan when generation of the new request plan is needed (Trips systems receives information from providers and implements it into travel planning).
17. As per new Claim 22, DeLorme discloses wherein each of the user agent, the brokering agent and the plurality of elementary service agents is an interactive agent.
18. As per new Claim 23, DeLorme discloses wherein each of the interactive agents uses a frame-type data structure, and the frame is a data structure having a predetermined syntax including a slot name and slot value corresponding thereto in each line, and each of the frames is defined in advance for its service (equivalent technology to system described by DeLorme).

19. As per new Claim 24, DeLorme discloses wherein the frame of the request message for the complex service is filled with their slot values (equivalent technology to system described by DeLorme).
20. As per new Claim 25, DeLorme discloses wherein a plurality of frame pairs is stored as the service description information, and each of the plurality of frame pairs expresses a requirement and result of a service offered by each of the plurality of elementary service agents (equivalent technology to system described by DeLorme).
21. As per new Claim 26, DeLorme discloses wherein the complex service is described in terms of the frames including the results of the service offered by the plurality of elementary service agents (equivalent technology to system described by DeLorme).
22. As per new Claim 27, DeLorme discloses wherein the brokering agent generates the request plan based on the plurality of frame pairs and the complex service is described in terms of the frames (equivalent technology to system described by DeLorme).
23. As per new Claim 28, DeLorme discloses wherein the request plan comprises strings of a plurality of elementary service requests, and each of the plurality of elementary service requests comprises a pair of a name of a requesting agent and a request message (Trips system request data from Providers listed).
24. As per new Claim 29, DeLorme discloses wherein the brokering agent sends a message to each of elementary service agents along with the prepared request plan, assembles a from a based on a message returned as a reply, and returns the frame to the user agent (equivalent communication technology to system described by DeLorme).

25. As per **independent Claim 13**, DeLorme discloses a service integration system comprising: a user agent on a user's computer (Fig.1A, Fig.2, retail user system); a brokering agent (Fig.2, TRIPS system; C31 L42-51, brokering) connected to the user agent via a network (Internet) and providing a complex service integrating a plurality of elementary services realized on a computer to the user agent (Trips system gathers requests from users and gathers integrated results from providers to provide user with complete travel plan); and a plurality of elementary service agents (Fig.2, Provider(s)), connected to the brokering agent (Trips system) via a network (Internet), and each of the plurality of elementary service agents providing an own elementary service realized on its own computer and provided independently of each other (third party systems – hotels, airports, event tickets), the brokering agent comprising; means for storing service description information comprising a combination of identification information of an elementary service agent which provides the elementary service (Provider listings), declarative description information needed to realize the elementary services (Fig.1C, retail user answers "who/ what/ where?"; C7 L22-35, C8 L33-37, receiving user defined travel route), and declarative description information on the processing results of the elementary services (user information used to obtain necessary tickets, reservations, etc.) for each of the plurality of elementary services, the declarative description information comprising declarative description and stating what properties an object of description has (Ticket number, hotel room, plane seat number); means for transmitting and receiving messages (Fig.2, Input/Output), and means for upon receipt of a request message for the complex service from the user agent (C7 L22-24, Travel Route, who/what/where entered

by retail user), decomposing the complex service into the elementary services using the service description information (C8 L33-48, TRIPS calculates, delineates, and displays travel route), and generating an elementary service request plan comprising strings of combinations of at least elementary service request information needed to realize the complex service, and the identification information of the elementary service agent which provides the elementary service, and means for notifying the generated request plan to the requesting user agent (C7 L28-65, C8 L33-48, TRIPS generates full itinerary), the user agent comprising means for requesting elementary services to the elementary service agents based on the request plan generated by the brokering agent (C14 L27-35, C18 L25-30).

Response to Arguments

26. Applicant's arguments filed 12/12/2005, with respect to Claims 9 and 11-29, have been considered but are not persuasive. The rejection will remain as **FINAL**, based on the sited prior art.

27. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

28. The applicant has made the argument that the prior art fails to disclose "agents," but merely discloses subsystems.

29. However, DeLorme discloses "agents" in Fig.2: Retail user system (user agent), Trips system (brokering agent), Provider systems (elementary service agents) - which communicate over the Internet (Network) (C13 L52-58).

30. The applicant has also made the argument that the prior art fails to disclose the ability to process information written with "declarative description."

31. However, DeLorme discloses interactive communication with a user, the Trips system and third-party providers (C13 L52-58), and wherein the user indicates the types of service needed (where, when, how, etc. – would be the descriptive declaration), the Trips systems uses the requested information to identify necessary third party providers (reservation system/ticketing system - hotel/airport/car rental), and obtains detailed reservation/booking information (tickets, seating info, room info, flight number, etc.) specific to the third party providers using the user entered details (C7).

Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Ouellette whose telephone number is (571) 272-6807. The examiner can normally be reached on Monday through Thursday, 8am - 5:00pm.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-6812. The fax phone numbers for the organization where this application or proceeding is assigned (571) 273-8300 for all official communications.

34. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Office of Initial Patent Examination whose telephone number is (703) 308-1202.

jo

February 9, 2006

JOHN G. WEISS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600